



User's Guide

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1. About This User's Guide

This User's Guide provides instructions for using Trns•port SiteXchange™ to transfer subcontract information electronically between prime contractors and the State Highway Agency (SHA).

Chapter 2 introduces you to the components of SiteXchange and describes the hardware and software requirements for running SiteXchange at optimal performance. This chapter also provides instructions for installing SiteXchange and setting configuration options for all the components.

Chapter 3 presents instructions for the SHA on how to use the SubGen component to distribute contract and vendor information to prime contractors.

Chapter 4 presents instructions for the prime contractor on how to use the SubCon component to import and manage contract information, how to enter item quantities and prices, and to submit contract information back to the SHA.

Chapter 5 presents instructions for the SHA on how to use the SubLoad component to convert the information they receive from subcontractors into files suitable for importing into SiteManager. It also presents instructions for using the SubPatch component to make modifications to the contract file when necessary.


1.1 Documentation Conventions


This guide uses different techniques to help you identify important information. Keys that you press and buttons that you click your mouse on to invoke an action are identified in small caps, for example, “press the ALT key.” Tab labels are also shown in small caps.

Menu choices and user entries (information you enter with the keyboard) are shown in bolded text.

Any system commands are identified by a Courier typeface and separated from the paragraph text.

Referenced publication titles and important terms are identified by *italics*.

 **Note:** Important notes are indented from both the right and left margins and flagged with small note icons. Notes contain extra information that may help you work more efficiently or understand a process more fully.

 **Caution:** Cautions look very similar to notes, but are flagged with an exclamation point icon. Read all warnings; they contain important information that should not be overlooked.

2. Before You Begin

Trns•port SiteXchange contains four components:

- | | |
|-----------------|---|
| SubGen | The SubGen program is used by the State Highway Agency (SHA) to convert contract and vendor data files exported from Trns•port SiteManager® into individual files suitable for distribution to prime contractors. |
| SubCon | The prime contractor loads the contract and vendor information they receive from the SHA into the SubCon program. SubCon allows the prime contractor to enter subcontract information, including subcontract vendors, items, item quantities, and item prices and then to submit the modified subcontract information to the SHA. |
| SubLoad | The SHA uses SubLoad to convert the files received from the prime contractors into files that can be imported into SiteManager. |
| SubPatch | The SubPatch program is used by the SHA to make final changes to the contract files before importing them into SiteManager. |

2.1 Hardware and Software Requirements

SiteXchange is distributed on CD-ROM. You will need these minimum hardware requirements in order to install the system programs:

- | | |
|-------------------------|---|
| Operating System | Microsoft Windows 98 or NT (Workstation or Server) 4.0 or higher |
| Processor | Intel 80486 or equivalent; Pentium or better recommended |
| RAM | 32 MB minimum for Windows NT; the more RAM you have, the better your computer will perform. |
| Disk Storage | 20 MB free space |

2.2 Installing SiteXchange

Follow these steps to install SiteXchange to your hard drive:

1. Insert the SiteXchange installation disc into your CD-ROM drive.
2. The Installation window appears. Click the INSTALL button and follow the instructions given in the setup program.

The setup program creates four subfolders in the Expedite SiteXchange folder. The SubGen folder contains the files required to run SubGen. The SubCon folder contains the files for running SubCon. The SubLoad folder contains files required to run SubLoad and SubPatch. A folder containing sample contract files is also created.

2.3 Customizing the SubGen Configuration File

The SubGen configuration file (subgen.cfg) is located in the SubGen folder. This file contains configuration information that controls how SubGen and SubCon will operate and must be customized to meet the specific requirements of your state. To customize the file you will need to edit it in a text editor, such as the Microsoft Windows Notepad program.

2.3.1 Setting General Options

Select values for these general options:

Short Description and Long Description Format	These options define what text should be used for the short and long item descriptions. For each option, the format is a list of these possible ID's:
--	---

PISUPDES	(from passfile linetype ITEM04)
PIPRPDES	(from passfile linetype ITEM05)
PISUPDE2	(from passfile linetype ITEM06)
IDESCR	(from passfile linetype ITEM07)
IDESCRL	(from passfile linetype ITEM08)
IDESCR2	(from passfile linetype ITEM09)
EXTRA	(from passfile linetype ITEM10)

These are the Trns•port standard values:

ShortDescriptionFormat = IDESCR, PISUPDES

LongDescriptionFormat = IDESCRL, IDESCR2, PISUPDES, PISUPDE2, PIPRPDES, EXTRA

**Quantity,
Unit Price,
and Extension
Formats**

These options determine how SubCon will display numbers in the SubCon windows.

QUANTITYFORMAT= WholeDigits.DecimalDigits.
The default is 9.3.

UNITPRICEFORMAT= WholeDigits.DecimalDigits.
The default is 8.5.

EXTENSIONFORMAT= WholeDigits.DecimalDigits.
The default is 9.2.

**Show Contract
Items In Tree**

This option determines if the contractor should have the contract item browse window. This is the tree node near the bottom of the tree, which shows the items in the contract. This does *not* refer to the item node under a particular subcontractor node. Valid values are TRUE|FALSE

**Allow Nested
Subs**

This option determines if subcontractors are allowed to specify subcontractor information for their work. If set to FALSE, all commands that Add a subcontractor to the contract will add the new subcontractor to the top level. If set to TRUE, Add commands that are executed while a particular subcontractor has focus will add the new subcontractor to the highlighted subcontractor. Valid values are TRUE|FALSE

**Only Allow
Amount Changes
In SM Data**

This option determines if users are restricted to changing only quantity for subcontract items, or amount for subcontracts that come in from SiteManager. Valid values are TRUE|FALSE

**Impose Amount
Floor In SM Data**

This option determines if users are restricted to entering subcontract amounts or subcontract item quantities that are equal to or greater than the original values that came in from SiteManager. Valid values are TRUE|FALSE

**Work Type Filter
Start Column**

The file containing data for vendors can also contain data that restricts which work types that vendor can perform. This data is kept at the end of the vendor data line, and will start in the column listed in this option. If no work type filtering is desired this option should be set to 0. The value should NOT include the eight-character linetype present at the beginning of the data file, and it should be one-based. So, for example, if a line of data looked like this:

VENDOR Some name here 0001, where 0001 was the first work type for filtering purposes., the value for this option should be 16.

2.3.2 Setting Subcontract Screen Options

These options contain the parameters to set up and manage data entry for the subcontractors in the SubCon Program.

**Screen Font,
Screen Font Size**

ScreenFont defines the name of the font to use for the current screen. If left comment out, it defaults to "MS Sans Serif". If you change this option to another font, make sure to use a basic font that is available on all windows machines.

The ScreenFontSize option defines the size of the font for the current window. The default size is 12 points.

The most common use for these entries is to change the font to a fixed pitch font. "Courier New" at 14 points is a good choice for fixed pitch.

**Subcontract
Screen Layout**

Is this an option? If so what is description?

2.3.3 Setting Sub Type Options

The Sub Type options are used to define what are valid sub types for use in the Subcontract window. There should be one line for each valid sub type, with the format of each line being Data=XYType where X and Y are either 0 or 1 and Type is a valid sub type. The value for X determines if the subcontractor uses items or not (0 = no items, 1 = items). The value for Y determines if the subcontractor falls under the sixty percent rule, meaning that if the subcontractor is a top level subcontractor, then only sixty percent of his amount is used to determine the contract amount. A value of 0 means use the full amount, a value of 1 means use only sixty percent of the amount.

2.3.4 Setting Data Screen Options

These options contain the parameters to set up the properties for the Miscellaneous data screen.

**ScreenFont,
ScreenFontSize**

ScreenFont defines the name of the font to use for the current screen. If left comment out, it defaults to "MS Sans Serif". If you change this option to another font, make sure to use a basic font that is available on all windows machines.

ScreenFontSize defines the size of the font for the current window. The default size is 12 points

The most common use for these entries is to change the font to a fixed pitch font. "Courier New" at 14 points is a good choice for fixed pitch.

2.3.5 Defining the Data Screen Template

The Data Screen template defines the Miscellaneous data input form displayed in the MISC Data Screen. This template contains data defining the text to display to the user

and the input fields to be entered by the user. Text enclosed in brackets defines an input field. The format of an input field is:

{COLNAME, SIZE, TYPE, REQUIRED, REFERENCE, START, END, KEY}

Only the first 3 values are required, the others are optional. The format of this template is the same as the Subcontract Screen Layout. See the comments above this section for more information. Unlike the Subcontract Screen Layout, this input data is displayed only once.

2.3.6 Setting Options for Context Help

This option defines the context sensitive help for the Subcontract and Misc data screens in SubCon. Context help is available by resting the mouse pointer on an input field. The help text that is displayed depends on the currently selected input field. This option is composed of entries of the form: FIELDNAME = HELPTEXT Where: FIELDNAME - The name of an input field defined in the [Subcontract Screen Layout] or [Data Screen Template] section. HELPTEXT - The text to display to the user for this input field.

If the same FIELDNAME is repeated more than once, it will be considered a continuation of the previous entry.

2.3.7 Defining the Report Template

Report templates are used to generate the proposal/bid printout. A Report template consists of blocks of text that are simply copied to the printer. There is a separate template for each logical print entity. For example, the report's header, footer, and cover page each has its own report template. In addition to plain text, a report template can contain "Escape Sequences" to print data from the current proposal.

Let's look at a template example:

The Contract ID is: {CONTRACT_ID}

When this template string is printed the text "The Contract ID is: " is copied directly to the printer, and the text "{CONTRACT_ID}" is replaced by the current proposals' Contract ID. This last part is the "Escape Sequence". Escape sequences are denoted by being surrounded by {} characters. There are several valid escape sequences you can use, one for each and every data element used by EBS. The full list of valid escape sequences is included later in this comment section.

Escape sequences may also contain one or more options to further clarify what you want to print. For example:

The Contract ID is: {CONTRACT_ID,SIZE=20}

This template string is like the one above, except that the Contract ID string, when printed, will take up exactly 20 characters by adding spaces to the end of the string. Let's look at another example:

```
{ITEM_QUANTITY,FORMAT=8.4,COMMAS=FALSE,SIZE=16,JUSTIFY=CENTER}
```

In this example, the current items quantity is printed in a 8.4 format centered in a 16 character space, without commas in the number.

There are several options you can apply to escape sequences. Most escape sequences print fine without any options applied. The Full list of options is below. One last thing of note about Escape sequences and their options is the REPEAT option. Some fields can contain more than one data element, and to print out more than just the first one, you can either specify the Escape sequence more than once, or you can use the REPEAT option. Let's look at an example:

```
County: {COUNTY_NAME,REPEAT=TRUE}
```

In this example, the escape sequence contains the REPEAT option. This means to repeat the ENTIRE LINE as many times as is necessary to print all the county names. If there were 3 counties, the output might look something like this:

```
County: Alachua  
County: Broward  
County: Orange
```

Finally, escape sequences may be set up as 'ternaries' or conditional operators. This means that you can do things like this:

```
{BID_ERRORS ? "(Contains bid errors)" : "", SIZE=21}
```

This means that if the sequence BID_ERRORS evaluates to TRUE then we should print "(Contains bid errors)", and if FALSE we should print nothing. The syntax for ternaries is as follows:

```
{sequenceID ? TrueValue : FalseValue options...}
```

The True and False values may be strings like the above example or they may be other sequenceID's or even other template names like this:

```
{ITEM_LUMP_SUM ? [Report Lump Sum Item] : [Report Normal Item]}
```

This says to print one template or the other based on the value of the ITEM_LUMP_SUM sequenceID.

Valid Escape Sequence Id's

Escape Seq ID	Type	Meaning
LETTING_DATE	DATE	Proposal Letting Data
LETTING_ID	TEXT	Proposal Letting ID
CALL_ORDER	TEXT	Proposal Call Order
CONTRACT_ID	TEXT	Proposal Contract ID
DATE_GENERATED	DATE	Proposal File generation date
DATE_REVISD	DATE	Proposal File revision date
CONTRACT_TYPE	TEXT	Contract Type
PROPOSAL_TYPE	TEXT	Proposal Type
HIGHWAY_NUMBER	TEXT	Highway Number
CONTROLLING_PROJECT	TEXT	Controlling Project Number
CONTROLLING_ROUTE	TEXT	Controlling Route Number
ALTERNATE_CONTRACT_ID	TEXT	Alternate Contract ID (up to 2)
PROPOSAL_LOCATION	TEXT	Proposal Location (up to 2)
PROPOSAL_DESCRIPTION	TEXT	Proposal Description
PROJECT_NUMBER	TEXT	Project Number (multiple)
ROAD_NAME	TEXT	Road Name (multiple)
ROUTE	TEXT	Route Name (multiple)
AMENDMENT_COUNT	INTEGER	# of EBS amendment files applied
PROPOSAL_TOTAL	NUMBER	Proposal Total
BIDDER_ID	TEXT	Bidder ID
BIDDER_NAME	TEXT	Bidder Name
BIDDER_ADDRESS1	TEXT	Bidder Address Line 1
BIDDER_ADDRESS2	TEXT	Bidder Address Line 2
BIDDER_CITY	TEXT	Bidder City
BIDDER_STATE	TEXT	Bidder State
BIDDER_ZIP	TEXT	Bidder Zip Code
BIDDER_PHONE	TEXT	Bidder Phone Number
SERIAL_NUMBER	TEXT	Proposals Serial Number, if any
CHECK	TEXT	Proposal Consistency Check
AMENDMENT_FILES	INTEGER	# of amendment notes in proposal
AMENDMENT_NUMBER	INTEGER	Amendment Note # (multiple)
AMENDMENT_DATE	DATE	Amendment Note Date (multiple)
AMENDMENT_DESCRIPTION	TEXT	Amendment Description (multiple)
COUNTY_ID	TEXT	County ID (multiple)
COUNTY_NAME	TEXT	County Name (multiple)
SITE_ESTIMATED_DAYS	NUMBER	Proposal Site Estimated Days (multiple)
SITE_START_DATE	DATE	Proposal Site Start Date (multiple)
SITE_END_DATE	DATE	Proposal Site Ending Date (multiple)
SITE_TYPE_DAYS	TEXT	Proposal Site Type Days (multiple)
SITE_DAMAGES	NUMBER	Proposal Site Damages (multiple)
SITE_DESCRIPTION	TEXT	Proposal Site Description (multiple)
SECTION_NUMBER	TEXT	Section Number
SECTION_ALTERNATE_CODE	TEXT	Section Alternate Code
SECTION_DESCRIPTION	TEXT	Section Description
SECTION_TOTAL	NUMBER	Section Total
ITEM_LINE_NUMBER	TEXT	Item Line Number
ITEM_ALTERNATE_CODE	TEXT	Item Alternate Code
ITEM_NUMBER	TEXT	Item Number
ITEM_QUANTITY	NUMBER	Item Quantity
ITEM_UNIT	TEXT	Item Unit
ITEM_UNIT_PRICE	NUMBER	Item Unit Price
ITEM_SHORT_DESCRIPTION	TEXT	Item Short Description
ITEM_LONG_DESCRIPTION	TEXT	Item Long Description
ITEM_EXTENSION	NUMBER	Item Extension
ITEM_INDEX	INTEGER	Item Index
ITEM_COUNT	INTEGER	Item Count
ITEM_LUMP_SUM	BOOLEAN	Item Is lump sum?
ITEM_FIXED_PRICE	BOOLEAN	Item Is Fixed price?
ITEM_IS_ALTERNATE	BOOLEAN	Item Is Alternate item ?

Escape Seq ID	Type	Meaning
ITEM_IS_OPTION	BOOLEAN	Item Is Item Option ?
ITEM_CHOSEN	BOOLEAN	Item Is Selected Alternate ?
PAGE_NUMBER	INTEGER	Current Page Number
BID_ERRORS	BOOLEAN	Bid Has Errors?
INFORMATIONAL	BOOLEAN	Bid Is Informational?
JOINT_BID	BOOLEAN	Bid Is Joint Bid?
IS_BID	BOOLEAN	Bidder has bid this proposal?
DBE_ENTEREDAMT	NUMBER	DBE Quoted ammount
DBE_ENTEREDPCT	NUMBER	DBE Quoted percent
DBE_REQAMT	NUMBER	DBE Required ammount
DBE_REQPCT	NUMBER	DBE Required percent
DBE_REQMET	BOOLEAN	DBE Requirement Met ?
DBE_BIDDERISDBE	BOOLEAN	Is Bidder a DBE ?
DROP	NONE	Skip lines until you reach the footer

Valid Escape Sequence Options

Option	Type	Meaning
SIZE	INTEGER	Specify field size
JUSTIFY	TEXT	Specify field justification (LEFT, CENTER, RIGHT)
FORMAT	TEXT	For numbers, specifies how many digits (ex: 9.4)
COMMAS	BOOLEAN	For numbers, puts commas in numbers (TRUE, FALSE)
MONEY	BOOLEAN	For numbers, preceed with \$ (TRUE, FALSE)
START	INTEGER	Specify starting element index
INDEX	INTEGER	Specify data element to print (See Docs)
REPEAT	BOOLEAN	Repeat current element till done.
MAXLINES	INTEGER	Maximum number of times to repeat this seq.
MINLINES	INTEGER	Minimum number of times to repeat this seq.
RESET	BOOLEAN	Reset element index (See Docs)
SUBSTRING	TEXT	Extracts a portion of the field string
REPLACE	TEXT	Replaces occurrence of 1 char with another
STRSTR	TEXT	Skip to particular string
STRIP	TEXT	Remove leading characters from the string
CLIP	TEXT	Remove trailing characters from the string
REMOVE	TEXT	Remove characters from the string

There are several mandatory templates, and they are printed in a specific order. The required templates are:

[Report Front] – Front of report

[Report Back] – Back of report

[Report Header] – Top of each page

[Report Footer] – Bottom of each page

[Report Sub Start] – Each Subcontract Begin

[Report Sub End] – Each Subcontract End

[Report SubItem List Header] – Top of SubItem List

[Report SubItem List Footer] – Bottom of SubItem List

[Report SubItem] – Each SubItem

The printing order is defined as:

[Report Front]

--- for each page ---

[Report Header]

[Report Sub Start]

[Report SubItem List Header]

[Report SubItem]

[Report SubItem List Footer]

[Report Sub End]

[Report Footer]

[Report Back]

Other templates may be required if they are referenced in an escape sequence.

These are the character translations:

\n	A newline character (start a new line)
\f	A formfeed character (start new page)
\xNN	Insert character with ascii value NN (in hex)
\	If at the END OF THE LINE, means that you do not want an implicit \n at the end of the line. In other words, the line of the printout continues with the next line of the template.

The last line of the footer template should end with a \fr\ sequence.

These are the report templates. Remember that all text in the templates is significant, including blank lines.

Report Header Template

This template is printed at the top of each page. This template is not printed at the top of the cover page (the Report Front) or the trailer page (the Report Back).

Report Footer Template

This template is printed at the bottom of each page. This template is not printed at the bottom of the cover page (the Report Front) or the trailer page (the Report Back).

Note that the last line ends with a \fr\ sequence. This means to print a formfeed '\f' (new page), print a carriage return '\r', and don't automatically print a newline '\n'. If you modify this footer template you will almost certainly want to preserve this character sequence '\fr\' on the end of the last line of the footer.

Report Front Template	This template is printed once at the beginning of the report. This template details the header page(s).
Report Back Template	This template is printed once at the end of the report. This template details the footer page(s).
Report Sub Start	This template is printed once at the beginning of each subcontractor. This template should include any information to be displayed about a subcontractor before his list of items is printed.;
Report Sub End	This template is printed once at the end of each subcontractor. This template should include any subcontract level summary information desired after the subcontractor's items have been printed.
Report Subitem List Header	This template is printed once at the beginning of each subcontractor's item list. This template should include any headers if the items are to be presented in tabular form.
Report Subitem List Footer	This template is printed once at the end of each subcontractor's itemlist. This template should include any summary information desired after the list of items has been printed.
Report Subitem	This template is printed once for each subcontractor item.

2.4 Using the SubLoad Configuration File

The SubLoad configuration file (subload.cfg) is located in the SubLoad folder. This file contains configuration information that controls how SubLoad and SubPatch will operate and must be customized to meet the specific requirements of your state. To customize the file you will need to edit it in a text editor, such as the Microsoft Windows Notepad program.

2.4.1 Setting SubLoad Options

Set these options:

Load File Name	The LOADFILENAME is the name of the file created/updated by the SubLoad program. LoadFileName = SUBS.Dat
Pause on Load	If the PAUSEONLOAD option is set to TRUE, it will cause the screen to pause for each contract loaded. Default value is False. Valid values are TRUE FALSE
Use Time Stamp File	This option determines whether the timestamp file ; generated by SubGen should be used to compare the time/date of the generated contract. The default value is true. Valid values are TRUE FALSE

Time Stamp File Name	The <code>TIMESTAMPFILENAME</code> option is the filename that contains the timestamps for each contract created by the SubGen program (ignored if <code>USETIMESTAMPFILE</code> is set to <code>FALSE</code>). Default value is <code>CONTTIME.CSV</code>
-----------------------------	---

2.5 Installing Expedite SubCon

Follow these steps to install the Expedite SubCon application software:

1. Click the **START** button and choose **Run**. The Run window appears.
2. Type the path to the **Setup.exe** file in the Open text box. If SiteXchange was installed, then this file is located in the Expedite SubCon folder (for example, `C:\Expedite\SubCon\Setup.exe`). Or you can use the **BROWSE** button to select the Setup.exe file.
3. Click **OK** to start the Expedite SubCon Setup program.
4. Follow the instructions given in the setup program.

2.6 Distributing the SubCon Program to Vendors

There are two ways the SHA may choose to distribute the SubCon program to bidders: by posting the Setup.exe file to the SHA website, or by creating and mailing floppy installation diskettes.

To create a software distribution diskette for a subcontractor, simply copy the Setup.exe file, which is located in the SubCon subdirectory, onto a diskette.

3. Distributing Information to Prime Contractors

Contract and vendor information is exported from SiteManager in flat file form. To prepare this information for distribution to the appropriate prime contractors, you must convert the contract flat file into individual contract files. If you wish, you may also encrypt the vendor data file.

3.1 Preparing Contract Files for Distribution

The SubGen program creates one contract file for each contract included in the export file created by SiteManager. A contract file created by SubGen is named the same as the contract ID and is given a .con file extension. SubGen reads a configuration file named subgen.cfg that contains options and report and screen layouts selected by your transportation agency.

3.1.1 Using Command Line Options to Create Contract Files

You will use command line parameters to run SubGen and create the contract files for prime contractors. These are the command line options you will use:

Usage:

SUBGEN [options] [FlatFile]

- or -

SUBGEN /Encrypt [file]

Where:

FlatFile If specified, is the contract file from SiteManager. If not specified, a file name of contract.csv is assumed.

Options are 0 or more of the following:

/Cfg=file	Specify configuration file (default is subgen.cfg).
/ContID=str	Only make contract files for this contID. Wildcards are okay.
/P	If specified, each contract that is created will be printed.
/Encrypt	If specified, the file on the command line is encrypted and compressed to the file Filename.bin. Expedite SubGen does no other processing if this option is used.
/Timestamp=file	Specify timestamp file (default is conttime.csv)

3.1.2 Correcting Errors

After you submit the command line parameters to create the contract files, SubGen will check for errors in the subgen.cfg configuration file and the contract data.

If SubGen detects an error in the subgen.cfg configuration file, it will produce an error message and terminate the process. Typical errors include invalid option values and references to data elements that do not exist. You must correct the error and resubmit the command line parameters.

If a critical error is found in the contract data, such as a value missing for a required field, an error message is produced but the process continues with the next contract in the file. SubGen simply will not produce a contract file for the contract with invalid data. In a case like this, you must correct the error in SiteManager and export the file again.

Finally, at the end of each contract in the contract data file, there is a place for an export error message to be stored in the export file. If the error message is present, SubGen prints it as an error message.

3.1.3 Using Timestamp Records

SubGen keeps a record of the date and time the latest version of a contract file was produced in a database file named conttime.csv, which resides in the same directory as the subgen.cfg file. You can use the records in this file to make sure that you are always loading only the latest version of a contract file.

3.1.4 Using the SubGen Configuration File to Customize SubCon

You can use the configuration file named subgen.cfg to customize several aspects of the SubCon component of SiteXchange.

Customizing Screens

You can customize two of the windows used in the SubCon program: the Subcontractor window and the Miscellaneous Data window.

Changing the Subcontractor Data Screen template allows you to customize the Subcontractor window and changing the Miscellaneous Data Screen template allows you to customize the Miscellaneous Data window. Both templates reside in the subgen.cfg file. You can use the templates to redefine the data entry fields, labels, and positions of the elements in the window.

For more information about customizing windows with data screen templates, see section 2.3.

Setting Process Workflow Options

You can also use the Subcontractor Data Screen template to set process workflow options for the SubCon program. See section 2.3 for details of specific options.

Customizing Reports

You can customize the report that contractors using SubCon will produce with the general report generation facility contained in the subgen.cfg file. This general report can print any contract, miscellaneous data, or data defined in a template. For more information on how reports are customized, see section 2.3.

3.2 Preparing Vendor Files for Distribution

To produce a file containing vendor information for distribution to the prime contractor, run the RTF batch process in SiteManager. The file contains the contract vendors, work types, and the work types to which certain vendors are limited.

You can distribute the vendor file as it is produced by SiteManager, or you may encrypt it. To encrypt the vendor data file, use the SubGen command line option as described in section 3.1.1.

4. Managing Subcontract Information

This chapter contains information to help the prime contractor on a state transportation department project exchange contract and vendor information with the State Highway Agency (SHA). Contractors will use the SubCon program to enter subcontract information, including subcontract vendors, items, item quantities, and item prices, generate reports, and submit the modified contract information back to the SHA.

4.1 Installing SubCon from Floppy Install Disks

Follow these steps to install the Expedite SubCon application software from the floppy disk you received from the SHA:

1. Insert the Install Disk into your floppy drive.
2. The Installation window appears. Click the INSTALL button.
3. The Expedite SubCon Setup program will begin. Follow the instructions given in the setup program.

4.2 Starting SubCon

You must be running Windows to start the SubCon program. To open the SubCon program, double-click on the SubCon icon.

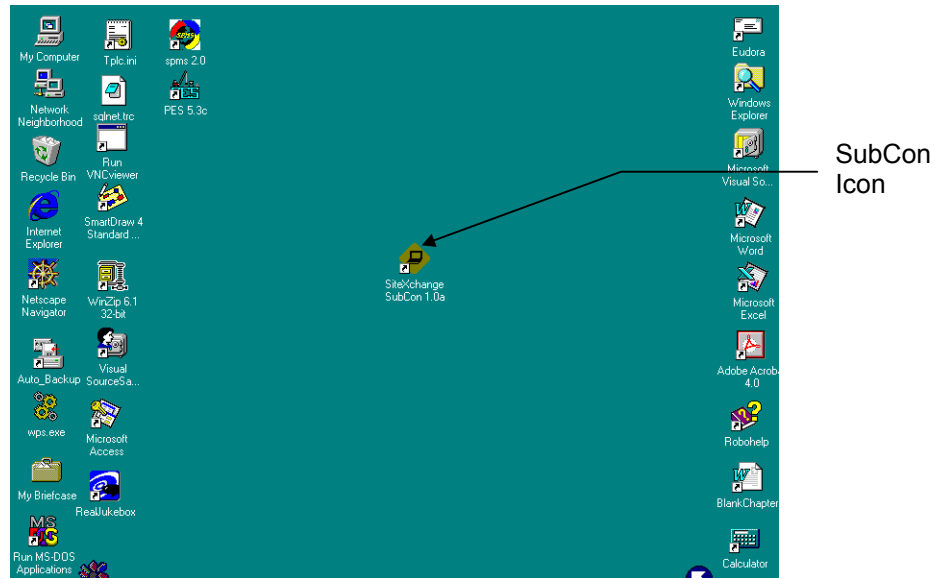


Figure 4-1. SubCon Icon

SubCon opens the main SubCon window, displaying two empty panes.

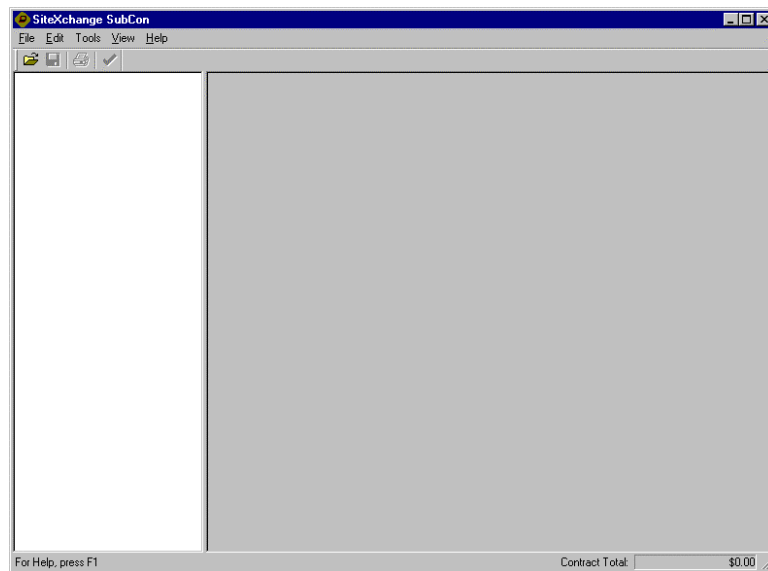


Figure 4-2. Expedite SubCon Window

4.3 Using Buttons and Menus to Invoke Commands

Most SubCon windows have title bars, menu bars, and button bars so you can easily activate commands.

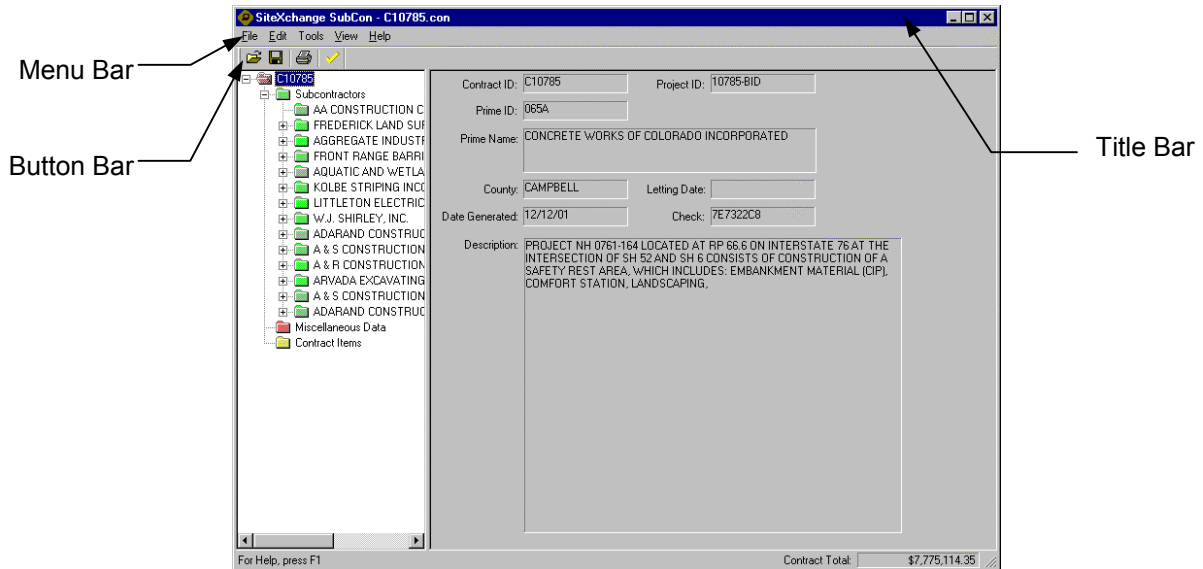


Figure 4-3. Typical SubCon Title, Menu, Button and Des Header Bars

4.3.1 Title Bar

The title bar contains the name of the application or window and buttons you can click to size, move, and close the window. In Windows, you can access the Control menu by clicking an icon in the upper-left corner of the window that represents the application in which you are working. In SubCon this icon will look like a small yellow triangle enclosing the letters SUB.

An easier way to manipulate the window is to use the three buttons in the upper-right corner of the window. The X button closes the application completely, the middle button either reduces the size of the window to its intermediate size or maximizes the window from its intermediate size, and the _ button minimizes the application and displays it on the Windows taskbar.

4.3.2 Menu Bar

The menu bar (which includes the File, Edit, Tools, View, and Help menus) contains the names of menus of commands. Dimmed (grayed) menus are not available for the active window. You can click on a menu name to display all available commands for that menu and then click on the command to activate it.

Below the menu bar is the button bar, which contains buttons for some of the most useful commands from the menus. The buttons available on this bar depend on the window that is open. In other words, the button bar is context specific.

Select SubCon commands in one of these ways:

- Click on the menu name to display the menu items available from that menu. From there, select the command you want to run. For example, you could select **Open** from the **File** menu,
- Click on one of the buttons on the button bar to begin working with one of the major groups of data. For example, you could click on the OPEN CONTRACT button and SubCon would display the Open Proposal window.

4.4 Opening a Contract File

To open a contract file, select **Open** from the **File** menu. SubCon displays the Open Contract window.

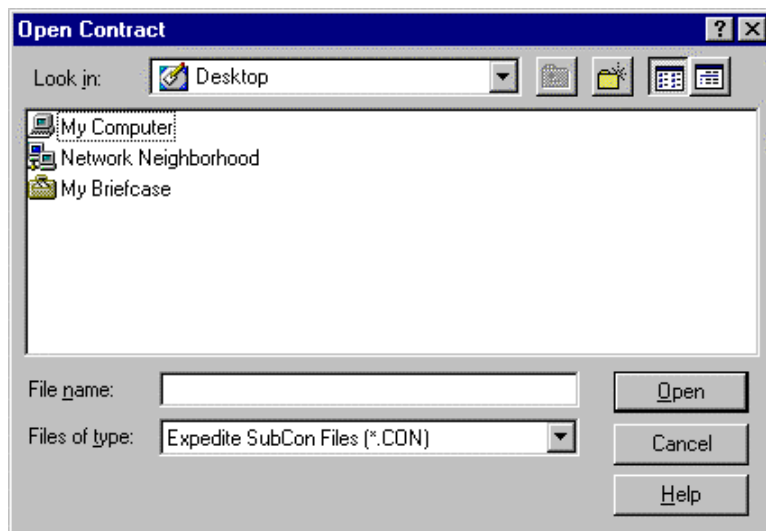


Figure 4-4. Open Contract Window

Browse to the directory where the contract data file you want to import is located. Select the file you want to import and click the OPEN button.

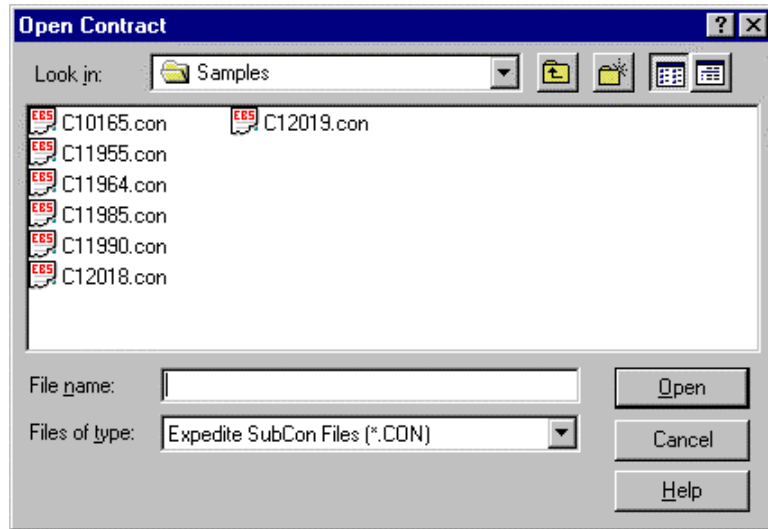


Figure 4-5. Contract Data Files

SubCon displays the main window with the contract identified in the title bar. The left pane of the window displays a tree view of the contract information and the right pane displays general information about the contract.

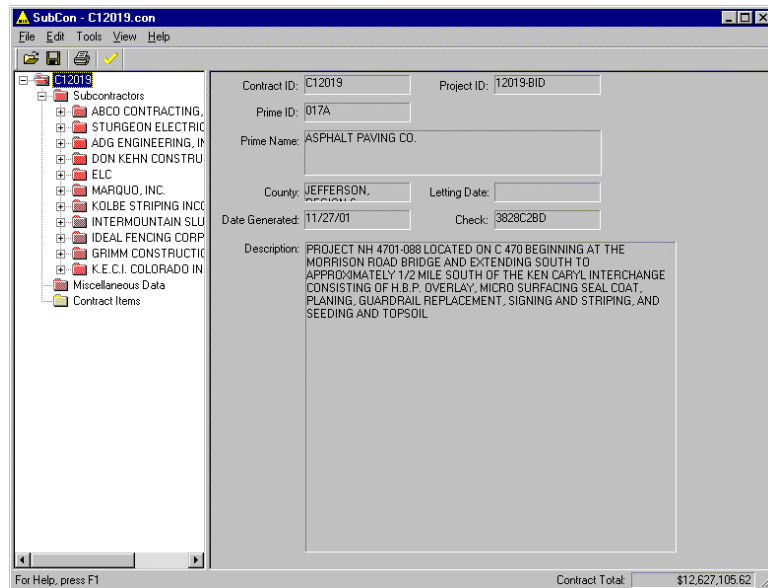


Figure 4-6. Contract Window

You can adjust the width of the panes by placing the cursor over the border between the two panes until the cursor turns into a line with arrows on each end. Press the left mouse button and drag left or right to adjust the width of the panes. The panes maintain these new widths until you change them again.

When a contract is first opened, the contract folder is displayed in the left pane of the contract window, but the folder is closed. To the left of the folder icon is a plus box [+].

Click on the plus box [+] to expand the tree view hierarchy for that contract. Notice that the plus box [+] has changed to a minus box [-]. You can collapse the tree view again by clicking the minus box [-].

Clicking on any folder in the hierarchy will open that folder and display related information in the right pane of the contract window. The tree view contains a folder for each subcontractor in the contract, including nested subcontractors.

Each subcontractor folder has a corresponding Items folder containing a list of all the contract items assigned to that subcontractor, if that subcontractor uses subcontract items.

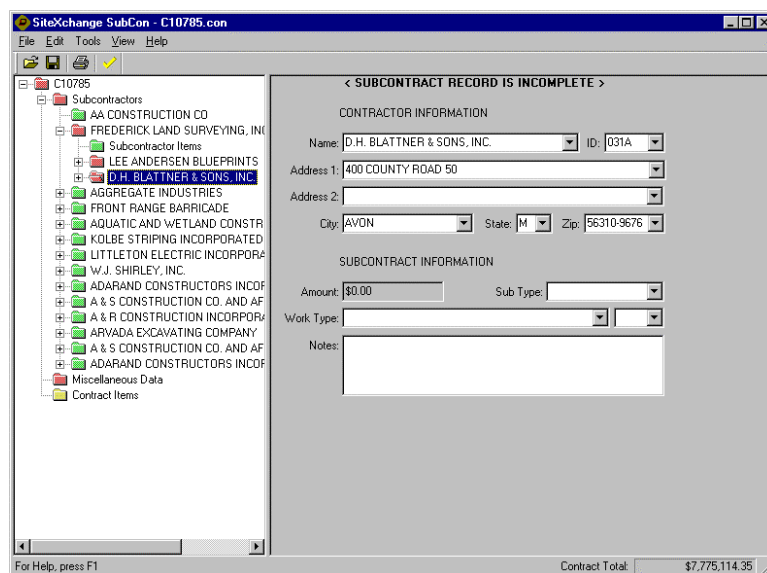


Figure 4-7. SubCon Extended Tree View

The folders in the tree view are color coded: a green folder indicates that it contains valid, error-free information; a yellow folder indicates that it contains information with warnings; and a red folder contains information with errors.

4.5 Managing Subcontract Information

You can add, change and delete subcontract information in the Contract window.

4.5.1 Adding Subcontract Information

To add a subcontractor to the contract, click on the contract folder in the tree view and select **Add Subcontractor** from the **Edit** menu. You can also add a subcontractor by clicking on the Subcontractors folder and selecting **Add Subcontractor** from the right mouse button menu.

SubCon adds a new folder to the list of subcontractors for the contract in the left pane and displays text boxes for adding new subcontract information in the right pane.

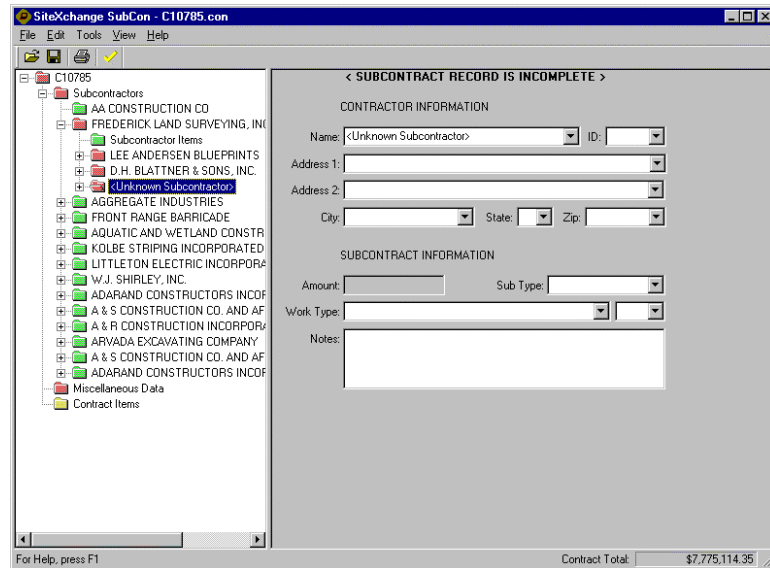


Figure 4-8. New Subcontractor Folder in Tree View

To add the new subcontractor, enter the subcontractor's name or click the down arrow to display a list of registered vendors. If you enter the first letters of a name that already exists in the list, SubCon will automatically advance the list to that name. Click on the name to select it and SubCon enters information for that vendor into the remaining text boxes. You can also select a vendor by entering the vendor's ID number in the ID text box, or the vendor's address in the Address text box. If the name of the new vendor is not in the list, type the name in the Name text box and press TAB to move to the next text box. In the left pane, SubCon adds the vendor's name to the new subcontractor folder.

Complete the subcontractor record by entering information into these remaining fields:

- Sub Type** This field contains a list of valid codes for subcontractor classifications. Certain sub types require that a subcontract amount be used instead of contract items to calculate the bid. When these sub types are chosen, you must also enter an amount in the Subcontract Amount field to create a complete record.
- Type of Work** This field contains a list of valid codes for work classifications. The choices available depend on the selected subcontractor.
- Notes** Miscellaneous comments may be added to the record in this field. These are not used in processing.


Select **Save** from the **File** menu to save the new subcontractor record.

Depending on how the option is set in the SubGen configuration file, you may be able to add nested subcontractors to the contract. SubCon adds a new subfolder in the left pane. Follow the steps described above to complete the new subcontractor record.

If nested subcontractors are not allowed, all subcontractor folders appear at the same level in the tree.

4.5.2 Changing Subcontract Information


To change information for a subcontractor, click on the subcontractor folder in the left pane and in the right pane, edit the information in the text boxes. Select **Save** from the **File** menu to save your work.

 **Note:** Depending on an option in the SubGen configuration file, you may not be able to change information for subcontractor records that were imported from SiteManager.

4.5.3 Deleting Subcontract Information


To delete a subcontractor from the list of subcontractors for this contract, select the subcontractor folder in the left pane and choose **Delete Subcontractor** from the **Edit** menu or the right mouse button menu. SubCon displays a Delete Confirmation window.

Click YES to complete the delete or NO to return to the window without deleting the subcontractor. Select **Save** from the **File** menu to save your work.

 **Note:** Depending on an option in the SubGen configuration file, you may not be able to delete a subcontractor record that was imported from SiteManager.

4.6 Managing Subcontract Items, Item Quantities, and Prices

When you have finished adding a new subcontractor to the contract, you can now begin to define the items on which that vendor will work. To assign items to a subcontractor, click on the Subcontractor Items folder for that subcontractor.

 **Note:** If the subcontractor is of a sub type that does not use items, SubCon will not create an Items folder for that subcontractor. For these subcontractors, you must instead enter an amount in the Subcontract Amount field.

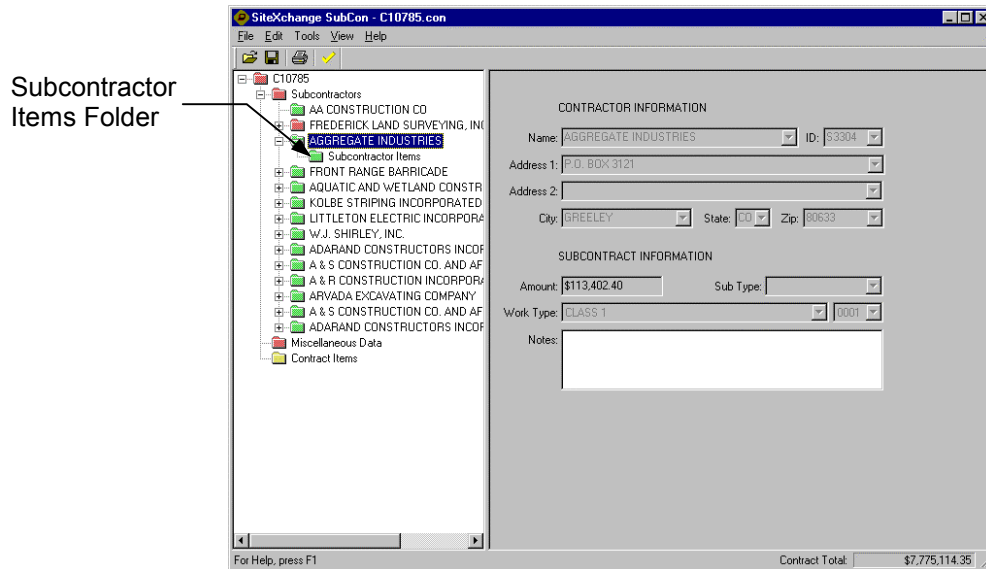


Figure 4-9. Subcontractor Items Folder

SubCon displays the Subcontractor Items window.

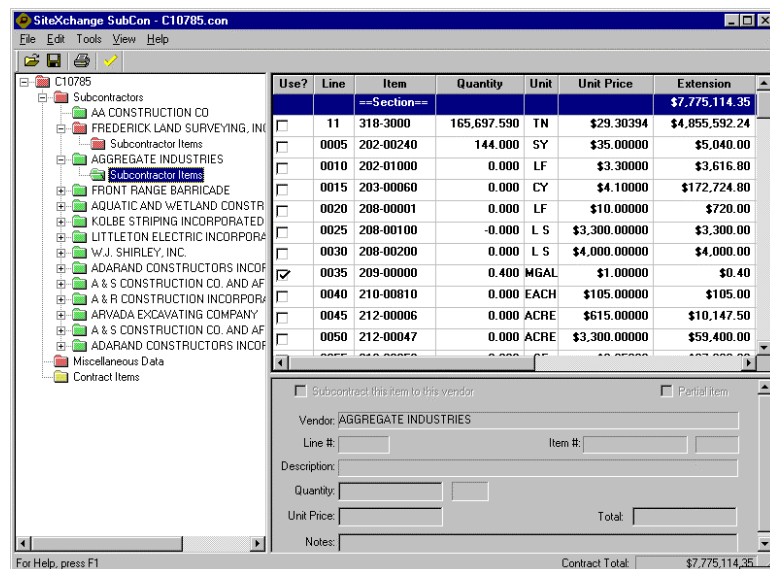


Figure 4-10. Subcontractor Items Window

The window is divided into two sections:

- The upper section of the window contains a scrollable list of all the items that can be subcontracted. The list is organized by section and line numbers. The items that are not assigned to the selected subcontractor appear dimmed.

- The lower section of the window contains information about the item currently selected in the list. You can add, change, or delete the quantity, unit price, and total cost information for the selected item. You can also add miscellaneous information in the Note field.

To subcontract an item to a vendor, select the item from the list in the upper section of the Subcontractor Item window, and either click the check box in the Use? column in the upper section of the window or the check box labeled **Subcontract this item to this vendor** in the lower section of the window.

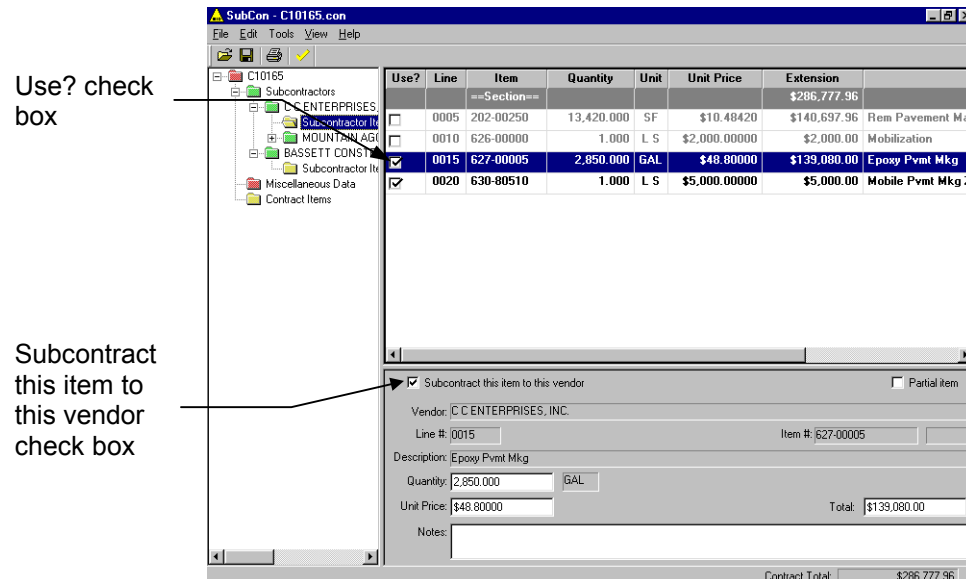


Figure 4-11. Check Box for Subcontracting Line Items

To delete an item, select the item in the upper section of the window and clear either the Use? check box or the **Subcontract this item to this vendor** check box.

Note: You cannot delete a subcontract item record that was created in SiteManager and imported into SubCon.

When you select an item in the upper section of the window, SubCon displays information about the selected item in the lower half of the window. You can add, change and delete information in these fields:

Quantity


SubCon calculates the quantity for the item as the remaining quantity not already assigned to other subcontractors. Partial items are not included in this calculation. You can change the quantity by clicking in the Quantity field and editing the value.

Unit Price

SubCon displays the awarded contract item unit price in the Unit Price field, but you can change this value at any time. If you change the unit price, SubCon recalculates the Total by multiplying the new unit price by the quantity.

Total

SubCon automatically calculates the extended amount shown in the Total field as the product of the quantity and the unit price. You can also change this value, in which case SubCon will recalculate the quantity by dividing the new extended amount by the unit price. If the extended amount for a subcontract item exceeds the extended amount for the contract item, SubCon displays a warning message.

-  **Note:** You can use math formulas to enter information in any numeric field. The formula evaluates immediately when you leave the field and is not stored.

When you have finished entering information for the item, select **Save** from the **File** menu to save your work. SubCon automatically checks to make sure you have entered information for all of the item's required fields, and displays an error message if any information is missing.

Depending on the options that have been selected in your SubGen configuration file, and whether the item record was created in SubCon or imported from SiteManager, SubCon may also perform these checks on the item quantities you have entered:

- A check to make sure you have not entered an item quantity that exceeds the contract item quantity.
- A check to make sure the quantity you entered does not fall below the amount that was assigned in SiteManager.
- If the subcontractor does not use items, a check to make sure the subcontractor amount does not fall below the amount assigned in SiteManager.

SubCon displays an error message if any of these quantity checks fail.

4.6.1 Using Partial Items

Partial items are items that are not constrained by SubCon's usual quantity checks and whose quantities are not included in determining minimums and maximums. An item may be designated as a partial item when the total quantity for that item is assigned to more than one subcontractor, thereby avoiding what SubCon would otherwise identify as a quantity error.

As an example, suppose one of the items in a contract is 2,000 pounds of asphalt. Two subcontractors are being used, one to supply the asphalt and the other to deliver it to the construction site. You can resolve this situation in one of these two ways:

- By designating the item as a partial item and assigning the total quantity of 2,000 pounds of asphalt to both of the subcontractors. This will not cause an error because SubCon will not include this item in its quantity checks.

- By assigning a quantity of 1,000 pounds to each of the subcontractors. In this case, do **not** designate the item as a partial item.

To designate an item as a partial item, select the item in the Subcontractor Items window and click the Partial Item check box in the detail area of the window.

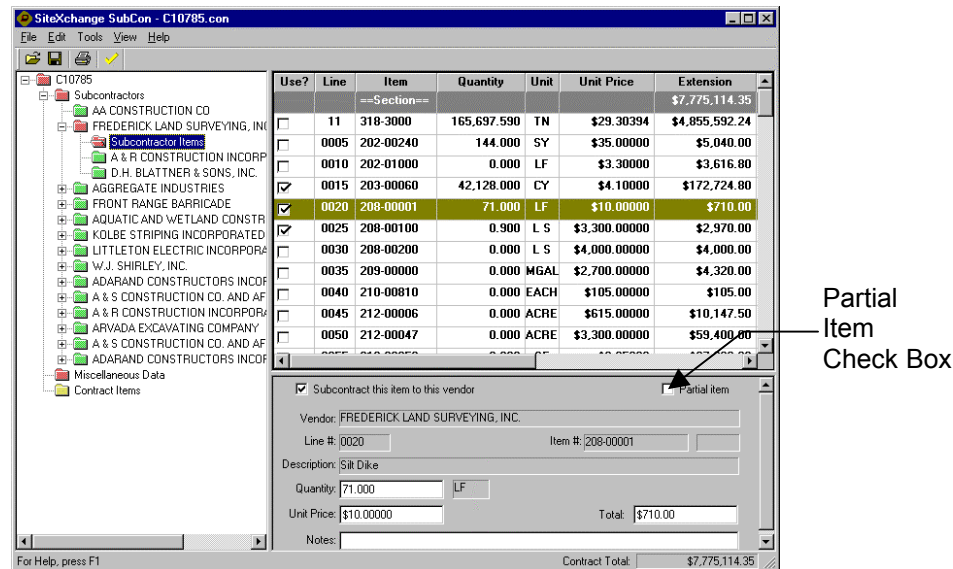


Figure 4-12. Partial Items Check Box

- **Note:** You cannot designate a subcontract item that was created in SiteManager and imported into SubCon as a partial item.

4.7 Printing a Schedule of Items Report

The Schedule of Items report is a listing of all the items you have subcontracted to a particular vendor. Follow these steps to print this report for a vendor:

1. In the left pane of the Subcontractor Items window, select the Subcontractor folder for the vendor.
2. Section **Print** from the **File** menu. If any errors exist in the subcontractor record, SubCon displays a Contract Error window.
3. SubCon displays a Print Option window. Select printing parameters and click OK.

4.8 Using SubCon Options

You have several options available to you for SubCon. To set SubCon options, select **Options** from the **Tools** menu. SubCon displays a SubCon Options window.

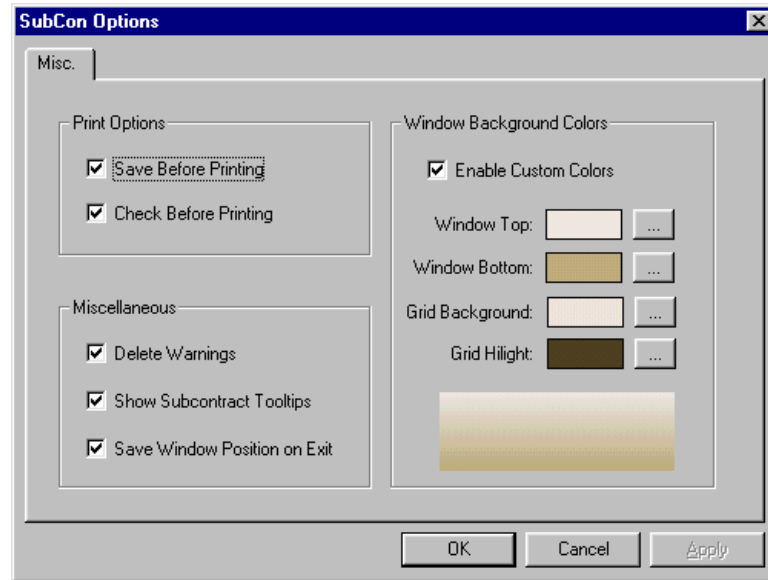


Figure 4-13. SubCon Options Window

The window displays options in four groups of checkboxes. When you have finished selecting options, click the **APPLY** button to immediately apply your choices and **OK** to close the Options window or click **CANCEL** to close the window without saving your changes.

5. Managing Subcontract Information Received From Prime Contractors

Prime contractors use the SubCon component to create contract data files, which are submitted to the State Highway Agency (SHA). The SHA must then import that information into SiteManager for further processing. Before the SHA can import the information, the file received from the prime contractor must be converted to a text file.

This chapter presents instructions for the SHA on how to use the SubLoad component of SiteXchange to convert the files they receive from prime contractors into text files suitable for importing into SiteManager. It also presents instructions for using the SubPatch component to make final changes to the contract file when necessary.

5.1 Converting Contract Files into Text Files

Follow these steps to convert the electronic file you have received from a prime contractor:

1. Insert the diskette containing the electronic file from the prime contractor into your floppy drive.
2. Type the following command at the DOS prompt:

```
subload a:\<contract file name>
```

The switch/date only needs to be used if you do not want to use the current date.

The SubLoad program converts the contents of the contract data file to a text file. The name for the file is defined in the SubLoad configuration file. The default file name is **subs.dat**.

After you have finished converting the data file, you may import the text file into SiteManager following the instructions found in the *SiteManager Reference Manual*.

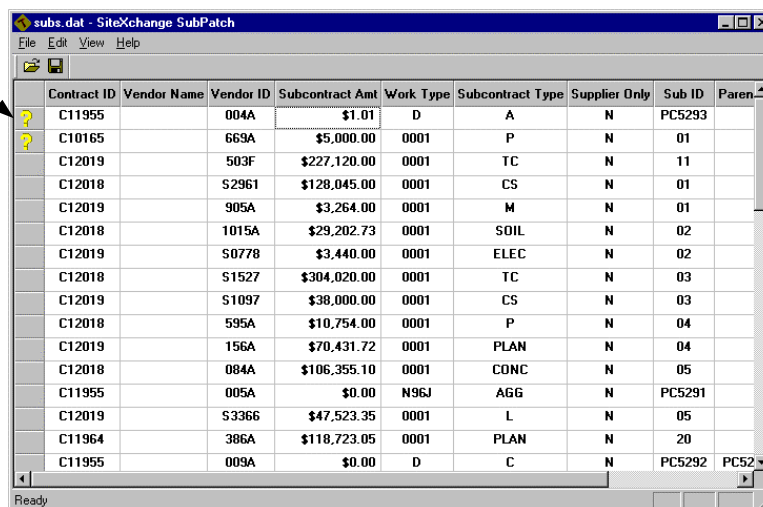
5.2 Correcting Information in the Contract File

Occasionally you may need to correct something in the contract file received from a prime contractor before importing it into SiteManager. In most cases this will be an incorrect or missing Vendor ID number. The SubPatch component of SiteXchange makes it easy to check and correct the information in the **subs.dat** file.

Follow these steps to edit the text file using SubPatch:

1. Click START and select Expedite SubPatch from the list of programs. The Expedite SubPatch window appears.
2. Select **Open** from the **File** menu and browse to the SubLoad folder. Select the **subs.dat** text file and click OPEN. The SubPatch window appears.

Invalid
Vendor ID
Indicator



Contract ID	Vendor Name	Vendor ID	Subcontract Amt	Work Type	Subcontract Type	Supplier Only	Sub ID	Parent
C11955		004A	\$1.01	D	A	N	PC5293	
C10165		669A	\$5,000.00	0001	P	N	01	
C12019		503F	\$227,120.00	0001	TC	N	11	
C12018		S2961	\$128,045.00	0001	CS	N	01	
C12019		905A	\$3,264.00	0001	M	N	01	
C12018		1015A	\$29,202.73	0001	SOIL	N	02	
C12019		S0778	\$3,440.00	0001	ELEC	N	02	
C12018		S1527	\$304,020.00	0001	TC	N	03	
C12019		S1097	\$38,000.00	0001	CS	N	03	
C12018		S95A	\$10,754.00	0001	P	N	04	
C12019		156A	\$70,431.72	0001	PLAN	N	04	
C12018		084A	\$106,355.10	0001	CONC	N	05	
C11955		005A	\$0.00	N96J	AGG	N	PC5291	
C12019		S3366	\$47,523.35	0001	L	N	05	
C11964		386A	\$118,723.05	0001	PLAN	N	20	
C11955		009A	\$0.00	D	C	N	PC5292	PC52

Figure 5-14. Expedite SubPatch Window

The SubPatch window contains a list of subcontractor data fields in a grid. The grid includes a row containing data fields for each subcontractor that the prime contractor has added to the contract. You can easily resize the columns and sort the records displayed in the grid.

To resize a column, rest your mouse pointer between two column headings. The pointer changes to a two-way arrow. Click and drag the mouse in the direction you want the column to change.

You can sort the records in the grid by the value of any field by clicking on the column header. SubPatch will sort first in ascending order, then if clicked again, will sort in descending order.

The column to the left of the grid may contain one or more question mark symbols. A question mark symbol indicates that the information currently entered in the Vendor ID field for that subcontractor is invalid. To correct the Vendor ID number, simply click in the field and edit the number.

SubPatch also contains an option that will allow you to change the information in any field in the grid if you wish. See section 5.2.1 for more information about setting SubPatch options.

When you have finished making changes to the **subs.dat** file, save your work by selecting **Save** from the **File** menu. You may now import the file into SiteManager following the instructions found in the *SiteManager Reference Manual*.

5.2.1 Using SubPatch Options

To set the SubPatch options, select **Options** from the **Edit** menu. SubPatch displays the Options window.

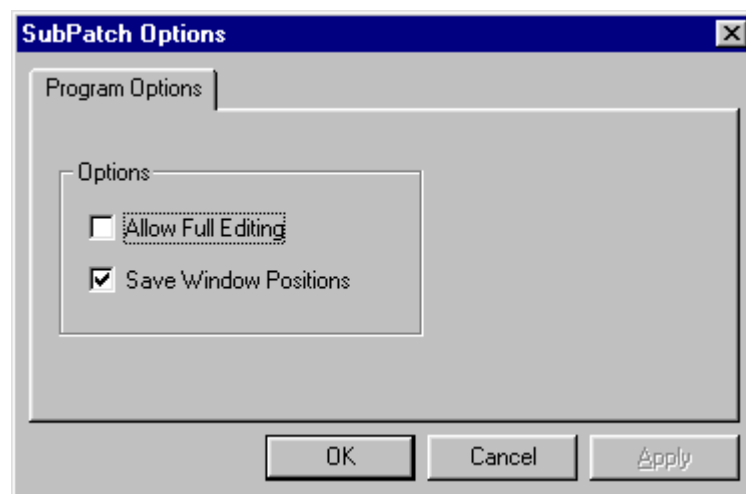


Figure 5-15. SubPatch Options Window

To make all the fields in the SubPatch grid window editable, click the Allow Full Editing check box.

Selecting the Save Windows Positions option will save any changes you made to the window size and position.

